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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,221	12/30/2003	Ju-Ho Kim	11038-145-999	1483

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EXAMINER

BURCH, MELODY M

ART UNIT PAPER NUMBER

3683

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/749,221	Applicant(s) KIM, JU-HO	
	Examiner Melody M. Burch	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/30/03, 6/23/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

3. Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on an application filed in Korea on 9/3/03. Applicant has not complied with the requirements of 37 CFR 1.63(c), since the oath, declaration or application data sheet does not acknowledge the filing of any foreign application. A new oath, declaration or application data sheet is required in the body of which the present application should be identified by application number and filing date. Examiner notes that the "yes" box is not checked in the "priority claimed" column.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-11291735 (JP'735) in view of US Patent 4677263 to Hamilton et al.

Re: claim 1. JP'735 shows in figure 7 a pneumatic suspension system comprising a cylinder 22, a piston 21 disposed inside the cylinder for reciprocation in response to vehicle vibration, a piston rod 25 connected to the piston to protrude outside of the cylinder, a main spring 34 mounted inside the cylinder for absorbing shock, detecting means 36 for detecting a position and motion of the piston, an air nozzle or portion of 31 to the left of element 7, an air passage or portion of element 31 to the right of element 7 and connected to element 23 for connecting an upper side (of element 23 of cylinder 22) and lower side (of element 23 of cylinder 22) of the cylinder 22 so that air in the upper space and lower space (of the cylinder) can be circulated, and a valve 7 for opening and closing the air passage.

JP'735 is silent with regards to the air nozzle being connected to an actuator and with regards to the valve specifically being a solenoid valve. Hamilton et al. teach in figure 5 the use of an air nozzle 31 being connected to an actuator 28 and the use of a valve being in the form of a solenoid valve.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the air nozzle of JP'735 to have been connected to an actuator, as taught by Hamilton et al., in order to provide a means of permitting fluid supply to the cylinder to effect piston movement and to provide suspension control.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the valve of JP'735 to have been a solenoid valve,

as taught by Hamilton et al., in order to provide a means of electrically controlling the valve to enable active control of fluid flow within the system.

Re: claim 2. JP'735, as modified, teaches in figure 7 of JP'735 wherein the detecting means comprises a magnetic belt 37 attached to the piston rod along a longitudinal direction thereof and a sensor 35 for sensing the position of the piston via the magnetic belt.

Re: claim 3. JP'735, as modified, teaches in figure 7 of JP'735 wherein the cylinder is mounted at an inner upper side and an inner lower side thereof with shock absorbing members or air particles in the upper and lower chamber regions, respectively, for absorbing shock generated by movement of the piston.

Re: claim 4. JP'735, as modified, teaches in figure 7 of JP'735 wherein the shock absorbing members are fixed to auxiliary springs 30 and 30a, particularly when the system is static, each closely abutted to the inner surface and inner lower surface of the cylinder, respectively.

Conclusion

6. In order to complete the record, it should be noted that no conflict appears to presently exist between the subject matter defined by the instant claims and the subject matter of the claims of applicant's and/or assignee's copending application no. 10/750687 has been made of record. Accordingly, no double patenting rejection is entered into the instant application. See MPEP 804+ concerning double patenting type of rejections, if necessary. Applicant and/or assignee should maintain this clear line of

patentable distinction between the instant claims and the claims of the indicated patent application.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 3720424 teaches the use of a pneumatic system including a piston, cylinder, and air nozzle and an air passage controlled by a valve. US Patent Application 2005/0150731 teaches the use of a compressible fluid damper with a piston rod position detected by magnetic means. US Patent 4928799 to Zschiesche and JP-4282040 teach the use of a piston-cylinder assembly having fluid circulating from an upper to lower chamber, and US Patent 4351515 to Yoshida teaches the use of magnetic piston rod detection means in a suspension system with two shock absorbing members. Finally, US Patent 2992535 to Barragan (Rivera) teaches the use of a piston-cylinder system having a main spring and two shock absorbing means.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mmb
March 2, 2006

Melody M. Burch
Melody M. Burch
Primary Examiner
Art Unit 3683
3/2/06